

## **APPENDIX A**

### **Engineering Trip Report**

### **Rodgers Crossing Reservoir**



## Field Trip Log

<b>Trip Log Number:</b>	14	<b>Project No.:</b>	1003032.01180502
<b>Dates:</b>	6/13/02	<b>Times:</b>	1315-1345
<b>Site Name:</b>	New Rodgers Crossing	<b>Location:</b>	Balch Camp
<b>Prepared By:</b>	DKR/JMH/WAM	<b>Reviewed By:</b>	
<b>Date:</b>	6/13/02	<b>Date:</b>	

<b>Attendees/Visitors Name</b>	<u>1.1.1.1.1.1 Organization/Phone/Email</u>
DKR	MWH, 925.685.6275 x125, david.k.rogers@ei.mwhglobal.com
JMH	MWH, 925.685.6275 x143, <a href="mailto:james.m.herbert@ei.mhwglobal.com">james.m.herbert@ei.mhwglobal.com</a>
WAM	MWH, 425.602.4025 x1060, william.a.moler@ei.mwhglobal.com

**Weather Conditions:**

Clear, warm (mid 80s), light breeze

**Access Route (attach map):**

Highway 99, Ventura Av / State highway 180 (E) through Fresno to Centerville, to Trimmer Springs Rd (N/E), to Rodgers Crossing Rd (E)

<b>Attachments:</b>	Yes	No
Photo Log	✓	
Photos	✓	
Video Log (available)	✓	
Dictation Log (available)	✓	
Topographic Map	✓	

**Purpose:**

Review proposed location of new damsite.

## **Field Observations:**

### **Existing Structures/Cultural Features:**

A U.S. Forest Service residence, campgrounds, and an old homestead (cattle corral and shacks) were observed in the area just upstream of the proposed new dam.

### **Right of Way/Access Restrictions:**

Public and Forest Service roads lead to the new Rodgers Crossing Dam and Reservoir area.

### **Overhead/Buried Utilities:**

None noted.

### **Description of Proposed Structures (attached a field sketch or sketch on a topo map):**

Per URS, the proposed dam at Rodgers Crossing would be located on the Kings River, ~½-mile upstream of its confluence with the North fork of the Kings River. The dam would a roller compacted concrete embankment having a height of up to 660 feet above streambed level, that would store up to 950,000 ac-ft of water, and spillway and outlet works. Water would come from natural run-off from the ~952 sq mi Kings River watershed above the North Fork (URS, 2000).

An earlier IECO alternative at the same location consisted of a 400-ft high, 1,660-ft long, thick concrete arch dam with a central gated crest spillway. A construction diversion tunnel would pass through the ridge of the right abutment. Normal full reservoir capacity was estimated at 295,000 ac-ft (IECO, 1974).

### **Description of Appurtenant Features (spillways, tunnels, pumping plants, flood routing/coffer dams/dewatering during construction, outlet works, switch yards, transformer yards, transmission lines, conveyance pipelines/canals, access roads, security, operation/maintenance):**

The proposed IECO dam would consist of a thick concrete arch structure with a central spillway, a twin 105-MW generating unit power plant, transmission lines and access roads.

### **Briefly Describe Geologic/Geotechnical Site Conditions:**

New Rodgers Crossing Dam and Reservoir would be located in the Sierra Nevada foothills well above the Great Valley. The state geologic map shows that Mesozoic granitics (tonalite and diorite) and pre-Cretaceous meta-sedimentary rocks underlie the damsite and reservoir area. Limestone units within the meta-sedimentary rocks occur both upstream and downstream of the damsite (CDMG, 1965).

The IECO report (1974) describes the damsite as being in a narrow, v-shaped valley with meta-sedimentary rocks of quartzite and quartz mica-schist. "Bedding" strikes

roughly parallel with the river canyon and dips toward the right abutment at ~ 50 to 60 degrees. The river channel contains bars of sand, gravel, and boulders that were considered to be “not excessively deep” (IECO, 1974).

As with most sites in the region, studies indicate that there are no faults in the area capable of producing ground motions greater than those generated by four known regional sources that include the San Andreas fault system, the Sierra Frontal fault system, the White Wolf fault, and the Garlock fault (USCOE, 1990).

**Location/Description of Nearest Borrow Areas (attach map or show on topo map):**

Impervious materials are not situated within a reasonable haul distance. Pervious and semi-pervious materials can reportedly be found in proximity to the site, as can bedrock outcrops of hard, resistant rock for riprap, rockfill, and concrete aggregate (IECO, 1974).

**Location/Description of Equipment/Material Staging and Lay Down Areas (attach map or show on topo map):**

Potential staging and laydown areas may be found in areas along the river downstream of the proposed damsite.

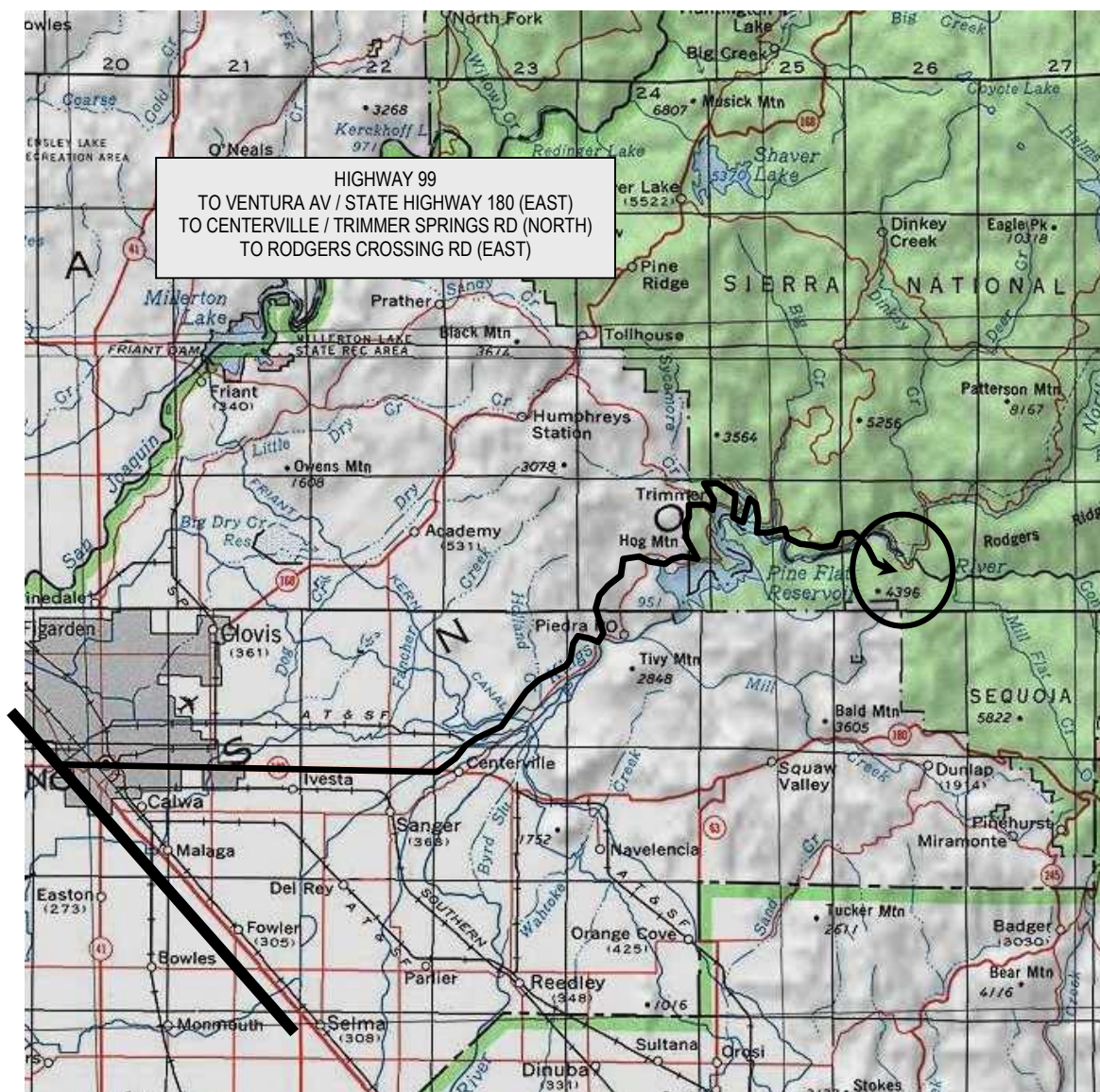
**Identification of Environmental Sensitive Areas (wetlands, springs, rivers, streams, endangered/threatened species habitats, etc.):**

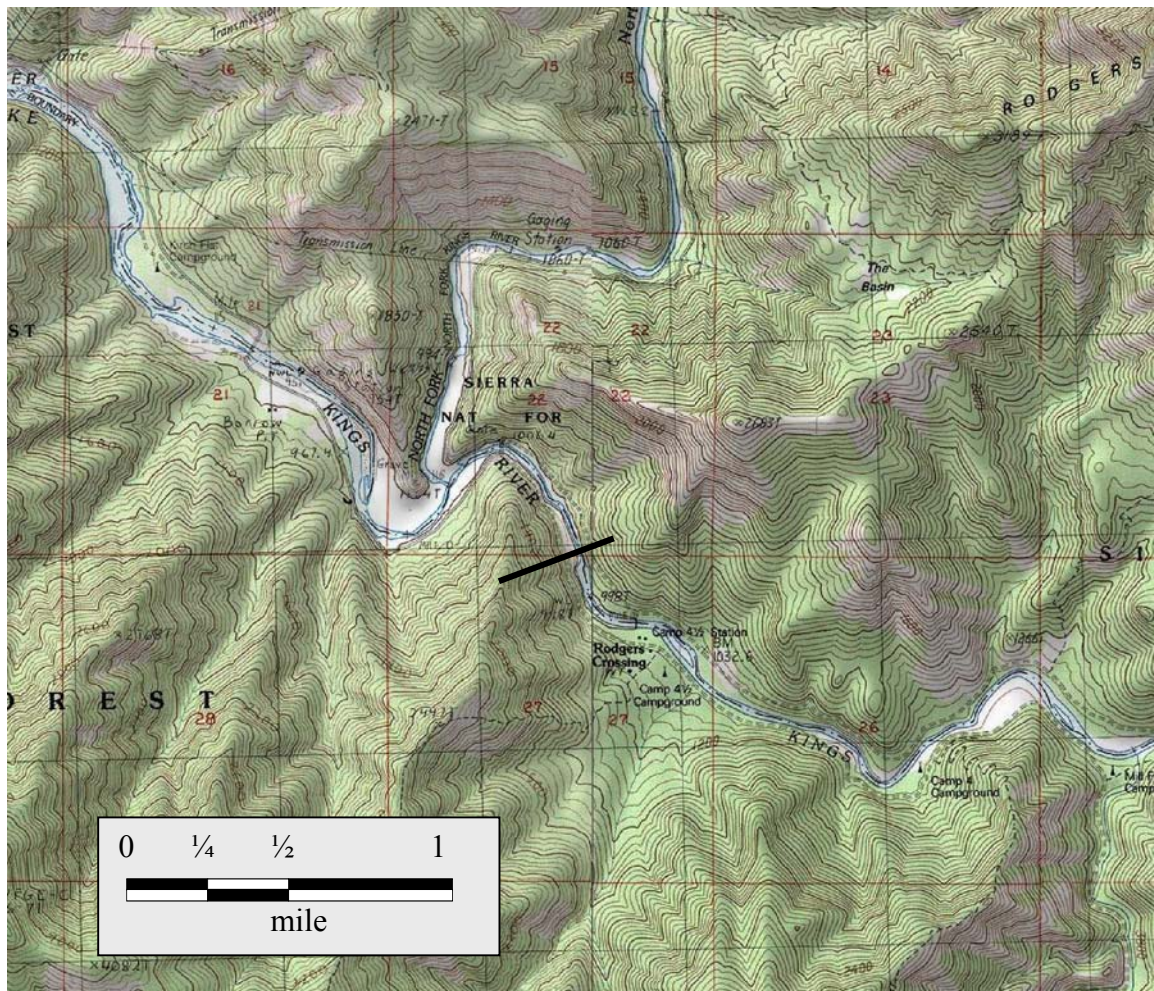
A riparian habitat is found along Kings River. Oak woodland habitats are found on the valley walls.

The Kings River in this area has been designated as Wild and Scenic, and is actively used by a number of river rafting enterprises. As such, the project would be extremely difficult to permit (URS, 2000).

**Description of Mining or Other Anthropologic Activities:**

None were noted.







Rodgers Crossing –  
Cross-valley view of right  
abutment of proposed  
dam.

Cross-Valley view of  
right abutment of  
proposed dam.



Upstream view of right  
abutment of proposed  
dam.